List of Publications by Year in descending order

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WENCHANG LUI

| # | Article | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Highly luminescent carbon nanodots by microwave-assisted pyrolysis. Chemical Communications, 2012, 48, 7955. | 4.1 | 830 |
| 2 | A Mechanically Strong, Highly Stable, Thermoplastic, and Selfâ€Healable Supramolecular Polymer Hydrogel. Advanced Materials, 2015, 27, 3566-3571. | 21.0 | 684 |
| 3 | Nano-carrier for gene delivery and bioimaging based on carbon dots with PEI-passivation enhanced fluorescence. Biomaterials, 2012, 33, 3604-3613. | 11.4 | 664 |
| 4 | Bioinspired fabrication of high strength hydrogels from non-covalent interactions. Progress in Polymer Science, 2017, 71, 1-25. | 24.7 | 379 |
| 5 | Waterâ€Triggered Hyperbranched Polymer Universal Adhesives: From Strong Underwater Adhesion to Rapid Sealing Hemostasis. Advanced Materials, 2019, 31, e1905761. | 21.0 | 352 |
| 6 | Paintable and Rapidly Bondable Conductive Hydrogels as Therapeutic Cardiac Patches. Advanced Materials, 2018, 30, e1704235. | 21.0 | 329 |
| 7 | One-step synthesis of surface passivated carbon nanodots by microwave assisted pyrolysis for enhanced multicolor photoluminescence and bioimaging. Journal of Materials Chemistry, 2011, 21, 13163. | 6.7 | 300 |
| 8 | Dipole–Dipole and Hâ€Bonding Interactions Significantly Enhance the Multifaceted Mechanical Properties of Thermoresponsive Shape Memory Hydrogels. Advanced Functional Materials, 2015, 25, 471-480. | 14.9 | 296 |
| 9 | Recent advances in wet adhesives: Adhesion mechanism, design principle and applications. Progress in Polymer Science, 2021, 116, 101388. | 24.7 | 251 |
| 10 | Direct 3D Printing of High Strength Biohybrid Gradient Hydrogel Scaffolds for Efficient Repair of Osteochondral Defect. Advanced Functional Materials, 2018, 28, 1706644. | 14.9 | 243 |
| 11 | Osteochondral Regeneration with 3Dâ€Printed Biodegradable Highâ€Strength Supramolecular Polymer Reinforcedâ€Gelatin Hydrogel Scaffolds. Advanced Science, 2019, 6, 1900867. | 11.2 | 239 |
| 12 | An investigation on the physicochemical properties of chitosan/DNA polyelectrolyte complexes. Biomaterials, 2005, 26, 2705-2711. | 11.4 | 233 |
| 13 | Water-soluble and phosphorus-containing carbon dots with strong green fluorescence for cell labeling. Journal of Materials Chemistry B, 2014, 2, 46-48. | 5.8 | 224 |
| 14 | A hybrid injectable hydrogel from hyperbranched PEG macromer as a stem cell delivery and retention platform for diabetic wound healing. Acta Biomaterialia, 2018, 75, 63-74. | 8.3 | 213 |
| 15 | Recombinant human collagen for tissue engineered corneal substitutes. Biomaterials, 2008, 29, 1147-1158. | 11.4 | 202 |
| 16 | 3D-Printed High Strength Bioactive Supramolecular Polymer/Clay Nanocomposite Hydrogel Scaffold for Bone Regeneration. ACS Biomaterials Science and Engineering, 2017, 3, 1109-1118. | 5.2 | 187 |
| 17 | A Janus Hydrogel Wet Adhesive for Internal Tissue Repair and Antiâ€Postoperative Adhesion. Advanced Functional Materials, 2020, 30, 2005689. | 14.9 | 182 |
| 18 | Collagen–phosphorylcholine interpenetrating network hydrogels as corneal substitutes. Biomaterials, 2009, 30, 1551-1559. | 11.4 | 171 |

| # | Article | IF | CITATIONS |
|----|--|------|-----------|
| 19 | An Injectable Supramolecular Polymer Nanocomposite Hydrogel for Prevention of Breast Cancer Recurrence with Theranostic and Mammoplastic Functions. Advanced Functional Materials, 2018, 28, 1801000. | 14.9 | 171 |
| 20 | Mg/N double doping strategy to fabricate extremely high luminescent carbon dots for bioimaging. RSC Advances, 2014, 4, 3201-3205. | 3.6 | 163 |
| 21 | Mechanically and biologically skin-like elastomers for bio-integrated electronics. Nature Communications, 2020, 11, 1107. | 12.8 | 162 |
| 22 | Degradable Disulfide Core-Cross-Linked Micelles as a Drug Delivery System Prepared from Vinyl Functionalized Nucleosides via the RAFT Process. Biomacromolecules, 2008, 9, 3321-3331. | 5.4 | 156 |
| 23 | A π-π conjugation-containing soft and conductive injectable polymer hydrogel highly efficiently rebuilds cardiac function after myocardial infarction. Biomaterials, 2017, 122, 63-71. | 11.4 | 147 |
| 24 | An injectable conductive hydrogel encapsulating plasmid DNA-eNOs and ADSCs for treating myocardial infarction. Biomaterials, 2018, 160, 69-81. | 11.4 | 147 |
| 25 | A rapid temperature-responsive sol–gel reversible poly(N-isopropylacrylamide)-g-methylcellulose copolymer hydrogel. Biomaterials, 2004, 25, 3005-3012. | 11.4 | 146 |
| 26 | 3Dâ€Bioprinted Osteoblast‣aden Nanocomposite Hydrogel Constructs with Induced Microenvironments Promote Cell Viability, Differentiation, and Osteogenesis both In Vitro and In Vivo. Advanced Science, 2018, 5, 1700550. | 11.2 | 142 |
| 27 | Multiple Hâ€Bonding Chain Extenderâ€Based Ultrastiff Thermoplastic Polyurethanes with Autonomous Selfâ€Healability, Solventâ€Free Adhesiveness, and AlE Fluorescence. Advanced Functional Materials, 2021, 31, 2006944. | 14.9 | 138 |
| 28 | Coadministration of an Adhesive Conductive Hydrogel Patch and an Injectable Hydrogel to Treat Myocardial Infarction. ACS Applied Materials & Interfaces, 2020, 12, 2039-2048. | 8.0 | 136 |
| 29 | A robust, highly stretchable supramolecular polymer conductive hydrogel with self-healability and thermo-processability. Scientific Reports, 2017, 7, 41566. | 3.3 | 132 |
| 30 | ZnO QD@PMAA-co-PDMAEMA nonviral vector for plasmid DNA delivery and bioimaging. Biomaterials, 2010, 31, 3087-3094. | 11.4 | 130 |
| 31 | NIRâ€Activated Polydopamineâ€Coated Carrierâ€Free "Nanobomb―for In Situ Onâ€Demand Drug Release. Advanced Science, 2018, 5, 1800155. | 11.2 | 130 |
| 32 | Enhanced gene transfection and serum stability of polyplexes by PDMAEMA-polysulfobetaine diblock copolymers. Biomaterials, 2011, 32, 628-638. | 11.4 | 127 |
| 33 | An Autolytic High Strength Instant Adhesive Hydrogel for Emergency Selfâ€Rescue. Advanced Functional Materials, 2018, 28, 1804925. | 14.9 | 125 |
| 34 | A Mineralized High Strength and Tough Hydrogel for Skull Bone Regeneration. Advanced Functional Materials, 2017, 27, 1604327. | 14.9 | 124 |
| 35 | A facile and versatile approach to biocompatible "fluorescent polymers―from polymerizable carbon nanodots. Chemical Communications, 2012, 48, 10431. | 4.1 | 123 |
| 36 | Injectable hyperbranched poly(β-amino ester) hydrogels with on-demand degradation profiles to match wound healing processes. Chemical Science, 2018, 9, 2179-2187. | 7.4 | 123 |

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|----|--|------|-----------|
| 37 | Highâ€Strength Hydrogels with Integrated Functions of Hâ€bonding and Thermoresponsive Surfaceâ€Mediated Reverse Transfection and Cell Detachment. Advanced Materials, 2010, 22, 2652-2656. | 21.0 | 122 |
| 38 | Polycation- <i>b</i> -Polyzwitterion Copolymer Grafted Luminescent Carbon Dots As a Multifunctional Platform for Serum-Resistant Gene Delivery and Bioimaging. ACS Applied Materials & Interfaces, 2014, 6, 20487-20497. | 8.0 | 114 |
| 39 | Redox-cleavable star cationic PDMAEMA by arm-first approach of ATRP as a nonviral vector for gene delivery. Biomaterials, 2010, 31, 559-569. | 11.4 | 112 |
| 40 | Zinc Ion Uniquely Induced Triple Shape Memory Effect of Dipole–Dipole Reinforced Ultraâ€High Strength Hydrogels. Macromolecular Rapid Communications, 2012, 33, 225-231. | 3.9 | 111 |
| 41 | NIR-responsive cancer cytomembrane-cloaked carrier-free nanosystems for highly efficient and self-targeted tumor drug delivery. Biomaterials, 2018, 159, 25-36. | 11.4 | 111 |
| 42 | Fabrication of a shape memory hydrogel based on imidazole–zinc ion coordination for potential cell-encapsulating tubular scaffold application. Soft Matter, 2013, 9, 132-137. | 2.7 | 108 |
| 43 | Radiopaque Highly Stiff and Tough Shape Memory Hydrogel Microcoils for Permanent Embolization of Arteries. Advanced Functional Materials, 2018, 28, 1705962. | 14.9 | 107 |
| 44 | Construction of an ultrahigh strength hydrogel with excellent fatigue resistance based on strong dipole–dipole interaction. Soft Matter, 2011, 7, 2825. | 2.7 | 106 |
| 45 | Wound dressing change facilitated by spraying zinc ions. Materials Horizons, 2020, 7, 605-614. | 12.2 | 106 |
| 46 | An Ultrasoft Selfâ€Fused Supramolecular Polymer Hydrogel for Completely Preventing Postoperative Tissue Adhesion. Advanced Materials, 2021, 33, e2008395. | 21.0 | 104 |
| 47 | Alginate microsphere-collagen composite hydrogel for ocular drug delivery and implantation. Journal of Materials Science: Materials in Medicine, 2008, 19, 3365-3371. | 3.6 | 103 |
| 48 | Sea Cucumber-Inspired Autolytic Hydrogels Exhibiting Tunable High Mechanical Performances, Repairability, and Reusability. ACS Applied Materials & Interfaces, 2016, 8, 8956-8966. | 8.0 | 100 |
| 49 | Conductive Hydrogen Sulfide-Releasing Hydrogel Encapsulating ADSCs for Myocardial Infarction Treatment. ACS Applied Materials & amp; Interfaces, 2019, 11, 14619-14629. | 8.0 | 93 |
| 50 | Thermosensitive N-isopropylacrylamide–N–propylacrylamide-vinyl pyrrolidone terpolymers: Synthesis, characterization and preliminary application as embolic agents. Biomaterials, 2005, 26, 7002-7011. | 11.4 | 90 |
| 51 | High Strength Multifunctional Multiwalled Hydrogel Tubes: Ion-Triggered Shape Memory, Antibacterial, and Anti-inflammatory Efficacies. ACS Applied Materials & Interfaces, 2015, 7, 16865-16872. | 8.0 | 90 |
| 52 | Intermolecular hydrogen bonding strategy to fabricate mechanically strong hydrogels with high elasticity and fatigue resistance. Soft Matter, 2013, 9, 6331. | 2.7 | 89 |
| 53 | An anti-inflammatory cell-free collagen/resveratrol scaffold for repairing osteochondral defects in rabbits. Acta Biomaterialia, 2014, 10, 4983-4995. | 8.3 | 89 |
| 54 | Cationic polymer brush grafted-nanodiamond via atom transfer radical polymerization for enhanced gene delivery and bioimaging. Journal of Materials Chemistry, 2011, 21, 7755. | 6.7 | 88 |

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|----|---|------|-----------|
| 55 | 3D printing of biomimetic vasculature for tissue regeneration. Materials Horizons, 2019, 6, 1197-1206. | 12.2 | 88 |
| 56 | Catechol functionalized hyperbranched polymers as biomedical materials. Progress in Polymer Science, 2018, 78, 47-55. | 24.7 | 85 |
| 57 | Biomedical polymers: synthesis, properties, and applications. Science China Chemistry, 2022, 65, 1010-1075. | 8.2 | 85 |
| 58 | Co-delivery of doxorubicin and tumor-suppressing p53 gene using aÂPOSS-based star-shaped polymer for cancer therapy. Biomaterials, 2015, 55, 12-23. | 11.4 | 83 |
| 59 | A Thermoresponsive Chitosanâ^'NIPAAm/Vinyl Laurate Copolymer Vector for Gene Transfection. Bioconjugate Chemistry, 2005, 16, 972-980. | 3.6 | 80 |
| 60 | Rebuilding Postinfarcted Cardiac Functions by Injecting TIIA@PDA Nanoparticle-Cross-linked ROS-Sensitive Hydrogels. ACS Applied Materials & Interfaces, 2019, 11, 2880-2890. | 8.0 | 79 |
| 61 | Biological applications of carbon dots. Science China Chemistry, 2014, 57, 522-539. | 8.2 | 77 |
| 62 | Biomaterials-enabled cornea regeneration in patients at high risk for rejection of donor tissue transplantation. Npj Regenerative Medicine, 2018, 3, 2. | 5.2 | 76 |
| 63 | A Reversibly Responsive Fluorochromic Hydrogel Based on Lanthanide–Mannose Complex. Advanced Science, 2019, 6, 1802112. | 11.2 | 76 |
| 64 | Double Hydrogenâ€Bonding pH‧ensitive Hydrogels Retaining High‧trengths Over a Wide pH Range. Macromolecular Rapid Communications, 2013, 34, 63-68. | 3.9 | 74 |
| 65 | Poly(<i>N</i> -acryloyl glycinamide): a fascinating polymer that exhibits a range of properties from UCST to high-strength hydrogels. Chemical Communications, 2018, 54, 10540-10553. | 4.1 | 73 |
| 66 | Coaxial Scaleâ€Up Printing of Diameterâ€Tunable Biohybrid Hydrogel Microtubes with High Strength, Perfusability, and Endothelialization. Advanced Functional Materials, 2020, 30, 2001485. | 14.9 | 73 |
| 67 | The biocompatibility of fatty acid modified dextran-agmatine bioconjugate gene delivery vector. Biomaterials, 2012, 33, 604-613. | 11.4 | 72 |
| 68 | Fabrication of strong hydrogen-bonding induced coacervate adhesive hydrogels with antibacterial and hemostatic activities. Biomaterials Science, 2020, 8, 1455-1463. | 5.4 | 71 |
| 69 | Polymerization of <i>N</i> -acryloylsemicarbazide: a facile and versatile strategy to tailor-make highly stiff and tough hydrogels. Materials Horizons, 2020, 7, 1160-1170. | 12.2 | 71 |
| 70 | An inhalable β2-adrenoceptor ligand-directed guanidinylated chitosan carrier for targeted delivery of siRNA to lung. Journal of Controlled Release, 2012, 162, 28-36. | 9.9 | 70 |
| 71 | An unparalleled H-bonding and ion-bonding crosslinked waterborne polyurethane with super toughness and unprecedented fracture energy. Materials Horizons, 2021, 8, 2742-2749. | 12.2 | 69 |
| 72 | Toward an understanding of thermoresponsive transition behavior of hydrophobically modified N-isopropylacrylamide copolymer solution. Polymer, 2005, 46, 5268-5277. | 3.8 | 66 |

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|----|--|------|-----------|
| 73 | Effect of Block Order of ABA―and BABâ€Type NIPAAm/HEMA Triblock Copolymers on Thermoresponsive Behavior of Solutions. Macromolecular Chemistry and Physics, 2007, 208, 1773-1781. | 2.2 | 65 |
| 74 | Temperature-tuned DNA condensation and gene transfection by PEI-g-(PMEO2MA-b-PHEMA) copolymer-based nonviral vectors. Biomaterials, 2010, 31, 144-155. | 11.4 | 65 |
| 75 | Regeneration of functional nerves within full thickness collagen–phosphorylcholine corneal substitute implants in guinea pigs. Biomaterials, 2010, 31, 2770-2778. | 11.4 | 65 |
| 76 | Enhanced gene delivery by chitosan-disulfide-conjugated LMW-PEI for facilitating osteogenic differentiation. Acta Biomaterialia, 2013, 9, 6694-6703. | 8.3 | 65 |
| 77 | A highly tough and stiff supramolecular polymer double network hydrogel. Polymer, 2018, 153, 193-200. | 3.8 | 65 |
| 78 | Antifouling Super Water Absorbent Supramolecular Polymer Hydrogel as an Artificial Vitreous Body. Advanced Science, 2018, 5, 1800711. | 11.2 | 64 |
| 79 | A High Strength Self-Healable Antibacterial and Anti-Inflammatory Supramolecular Polymer Hydrogel. Macromolecular Rapid Communications, 2017, 38, 1600695. | 3.9 | 62 |
| 80 | Hydrogen bonded and ionically crosslinked high strength hydrogels exhibiting Ca ²⁺ -triggered shape memory properties and volume shrinkage for cell detachment. Journal of Materials Chemistry B, 2015, 3, 6347-6354. | 5.8 | 61 |
| 81 | A Fe ³⁺ -crosslinked pyrogallol-tethered gelatin adhesive hydrogel with antibacterial activity for wound healing. Biomaterials Science, 2020, 8, 3164-3172. | 5.4 | 60 |
| 82 | A Selfâ€Thickening and Self‣trengthening Strategy for 3D Printing High‣trength and Antiswelling Supramolecular Polymer Hydrogels as Meniscus Substitutes. Advanced Functional Materials, 2021, 31, 2100462. | 14.9 | 60 |
| 83 | High-Strength Photoresponsive Hydrogels Enable Surface-Mediated Gene Delivery and Light-Induced Reversible Cell Adhesion/Detachment. Langmuir, 2014, 30, 11823-11832. | 3.5 | 58 |
| 84 | Nano-silver in situ hybridized collagen scaffolds for regeneration of infected full-thickness burn skin. Journal of Materials Chemistry B, 2015, 3, 4231-4241. | 5.8 | 58 |
| 85 | A study of thermoresponsive poly(N-isopropylacrylamide)/polyarginine bioconjugate non-viral transgene vectors. Biomaterials, 2006, 27, 4984-4992. | 11.4 | 55 |
| 86 | Hydrogen-Bonding Toughened Hydrogels and Emerging CO ₂ -Responsive Shape Memory Effect. Macromolecular Rapid Communications, 2015, 36, 1585-1591. | 3.9 | 55 |
| 87 | Synthetic neoglycopolymer-recombinant human collagen hybrids as biomimetic crosslinking agents in corneal tissue engineering. Biomaterials, 2009, 30, 5403-5408. | 11.4 | 54 |
| 88 | A Short Review on Selfâ€Healing Thermoplastic Polyurethanes. Macromolecular Chemistry and Physics, 2021, 222, 2100002. | 2.2 | 54 |
| 89 | Robust MeO2MA/vinyl-4,6-diamino-1,3,5-triazine copolymer hydrogels-mediated reverse gene transfection and thermo-induced cell detachment. Biomaterials, 2011, 32, 1943-1949. | 11.4 | 52 |
| 90 | Bacteria activated-macrophage membrane-coated tough nanocomposite hydrogel with targeted photothermal antibacterial ability for infected wound healing. Chemical Engineering Journal, 2021, 420, 127638. | 12.7 | 52 |

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|-----|---|------|-----------|
| 91 | Zinc ion-triggered two-way macro-/microscopic shape changing and memory effects in high strength hydrogels with pre-programmed unilateral patterned surfaces. Soft Matter, 2012, 8, 6846. | 2.7 | 51 |
| 92 | Enhanced Therapeutic siRNA to Tumor Cells by a pH-Sensitive Agmatine–Chitosan Bioconjugate. ACS Applied Materials & Interfaces, 2015, 7, 8114-8124. | 8.0 | 51 |
| 93 | High-strength hydrogel-based bioinks. Materials Chemistry Frontiers, 2019, 3, 1736-1746. | 5.9 | 44 |
| 94 | Controlled Heterogeneous Stem Cell Differentiation on a Shape Memory Hydrogel Surface. Scientific Reports, 2014, 4, 5815. | 3.3 | 43 |
| 95 | Directed neural stem cell differentiation on polyaniline-coated high strength hydrogels. Materials Today Chemistry, 2016, 1-2, 15-22. | 3.5 | 42 |
| 96 | Local gene delivery via endovascular stents coated with dodecylated chitosan–plasmid DNA nanoparticles. International Journal of Nanomedicine, 2010, 5, 1095. | 6.7 | 41 |
| 97 | An injectable and antifouling self-fused supramolecular hydrogel for preventing postoperative and recurrent adhesions. Chemical Engineering Journal, 2021, 404, 127096. | 12.7 | 41 |
| 98 | Functional hydrogels for the treatment of myocardial infarction. NPG Asia Materials, 2022, 14, . | 7.9 | 41 |
| 99 | A thermoresponsive supramolecular copolymer hydrogel for the embolization of kidney arteries. Biomaterials Science, 2016, 4, 1673-1681. | 5.4 | 40 |
| 100 | One zwitterionic injectable hydrogel with ion conductivity enables efficient restoration of cardiac function after myocardial infarction. Chemical Engineering Journal, 2021, 418, 129352. | 12.7 | 40 |
| 101 | Tea eggs-inspired high-strength natural polymer hydrogels. Bioactive Materials, 2021, 6, 2820-2828. | 15.6 | 39 |
| 102 | Stiffness Self‶uned Shape Memory Hydrogels for Embolization of Aneurysms. Advanced Functional Materials, 2020, 30, 1910197. | 14.9 | 38 |
| 103 | Guanidinylation: A simple way to fabricate cell penetrating peptide analogueâ€modified chitosan vector for enhanced gene delivery. Journal of Applied Polymer Science, 2011, 121, 3569-3578. | 2.6 | 37 |
| 104 | Injectable Hyaluronic Acid Hydrogel Loaded with Functionalized Human Mesenchymal Stem Cell Aggregates for Repairing Infarcted Myocardium. ACS Biomaterials Science and Engineering, 2020, 6, 6926-6937. | 5.2 | 37 |
| 105 | Zwitterionâ€Initiated Spontaneously Polymerized Super Adhesive Showing Realâ€Time Deployable and Longâ€Term Highâ€Strength Adhesion against Various Harsh Environments. Advanced Functional Materials, 2022, 32, 2109144. | 14.9 | 37 |
| 106 | Surface passivated carbon nanodots prepared by microwave assisted pyrolysis: effect of carboxyl group in precursors on fluorescence properties. RSC Advances, 2014, 4, 18818-18826. | 3.6 | 36 |
| 107 | Methyl matters: An autonomic rapid self-healing supramolecular poly(N-methacryloyl glycinamide) hydrogel. Polymer, 2017, 126, 1-8. | 3.8 | 36 |
| 108 | Superâ€Soft DNA/Dopamineâ€Graftedâ€Dextran Hydrogel as Dynamic Wire for Electric Circuits Switched by a Microbial Metabolism Process. Advanced Science, 2020, 7, 2000684. | 11.2 | 35 |

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|-----|---|------|-----------|
| 109 | N-Isopropylacrylamide/2-Hydroxyethyl Methacrylate Star Diblock Copolymers: Synthesis and Thermoresponsive Behavior. Macromolecular Chemistry and Physics, 2006, 207, 2329-2335. | 2.2 | 34 |
| 110 | Polymer Pressureâ€Sensitive Adhesive with A Temperatureâ€Insensitive Loss Factor Operating Under Water and Oil. Advanced Functional Materials, 2021, 31, 2104296. | 14.9 | 34 |
| 111 | High-strength hydrogel as a reusable adsorbent of copper ions. Journal of Hazardous Materials, 2012, 213-214, 258-264. | 12.4 | 33 |
| 112 | Harnessing isomerization-mediated manipulation of nonspecific cell/matrix interactions to reversibly trigger and suspend stem cell differentiation. Chemical Science, 2016, 7, 333-338. | 7.4 | 32 |
| 113 | Self-aggregation behavior of alkylated chitosan and its effect on the release of a hydrophobic drug. Journal of Biomaterials Science, Polymer Edition, 2003, 14, 851-859. | 3.5 | 29 |
| 114 | Redoxâ€Triggered Selfâ€Rolling Robust Hydrogel Tubes for Cell Encapsulation. Macromolecular Rapid Communications, 2014, 35, 344-349. | 3.9 | 29 |
| 115 | Gene-modified cell detachment on photoresponsive hydrogels strengthened through hydrogen bonding. Acta Biomaterialia, 2014, 10, 2529-2538. | 8.3 | 29 |
| 116 | Polyzwitterion Manipulates Remineralization and Antibiofilm Functions against Dental Demineralization. ACS Nano, 2022, 16, 3119-3134. | 14.6 | 29 |
| 117 | 3D printed biomimetic epithelium/stroma bilayer hydrogel implant for corneal regeneration. Bioactive Materials, 2022, 17, 234-247. | 15.6 | 28 |
| 118 | 3D Printed Highâ€Strength Supramolecular Polymer Hydrogelâ€Cushioned Radially and Circumferentially Oriented Meniscus Substitute. Advanced Functional Materials, 2022, 32, . | 14.9 | 28 |
| 119 | Nanoclay Incorporated Polyethylene-Glycol Nanocomposite Hydrogels for Stimulating <i> In Vitro</i> and <i> In Vivo</i> Osteogenesis. Journal of Biomedical Nanotechnology, 2018, 14, 662-674. | 1.1 | 26 |
| 120 | A hyperbranched polymer elastomer-based pressure sensitive adhesive. Journal of Materials Chemistry A, 2022, 10, 1257-1269. | 10.3 | 25 |
| 121 | Repair of volumetric bone defects with a high strength BMP-loaded-mineralized hydrogel tubular scaffold. Journal of Materials Chemistry B, 2017, 5, 5588-5596. | 5.8 | 23 |
| 122 | ZnO quantum dots-embedded collagen/polyanion composite hydrogels with integrated functions of degradation tracking/inhibition and gene delivery. Journal of Materials Chemistry, 2012, 22, 512-519. | 6.7 | 22 |
| 123 | A conductive and biodegradable hydrogel for minimally delivering adipose-derived stem cells. Science China Technological Sciences, 2019, 62, 1747-1754. | 4.0 | 22 |
| 124 | A high strength pH responsive supramolecular copolymer hydrogel. Science China Technological Sciences, 2017, 60, 78-83. | 4.0 | 21 |
| 125 | Guanidinylated allylamine-N-isopropylacrylamide copolymer nonviral transgene vectors. International Journal of Pharmaceutics, 2007, 331, 116-122. | 5.2 | 20 |
| 126 | A robust poly(<i>N</i> -acryloyl-2-glycine)-based sponge for rapid hemostasis. Biomaterials Science, 2020, 8, 3760-3771. | 5.4 | 20 |

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|-----|---|------|-----------|
| 127 | PDMAEMA-b-polysulfobetaine brushes-modified ε-polylysine as a serum-resistant vector for highly efficient gene delivery. Journal of Materials Chemistry, 2012, 22, 23576. | 6.7 | 19 |
| 128 | A pHâ€Responsive Biodegradable High‣trength Hydrogel as Potential Gastric Resident Filler. Macromolecular Materials and Engineering, 2018, 303, 1800290. | 3.6 | 19 |
| 129 | Carrier-free nanodrug-based virus-surface-mimicking nanosystems for efficient drug/gene co-delivery. Biomaterials Science, 2018, 6, 3300-3308. | 5.4 | 18 |
| 130 | A high strength, anti-fouling, self-healable, and thermoplastic supramolecular polymer hydrogel with low fibrotic response. Science China Technological Sciences, 2019, 62, 569-577. | 4.0 | 18 |
| 131 | An in situ-forming polyzwitterion hydrogel: Towards vitreous substitute application. Bioactive Materials, 2021, 6, 3085-3096. | 15.6 | 18 |
| 132 | Combining magnetic field/temperature dual stimuli to significantly enhance gene transfection of nonviral vectors. Journal of Materials Chemistry B, 2013, 1, 43-51. | 5.8 | 17 |
| 133 | A systemic gene vector constructed by zwitterionic polymer modified low molecular weight PEI. Reactive and Functional Polymers, 2013, 73, 993-1000. | 4.1 | 17 |
| 134 | Photoactive Selfâ€5haping Hydrogels as Noncontact 3D Macro/Microscopic Photoprinting Platforms. Macromolecular Rapid Communications, 2015, 36, 2129-2136. | 3.9 | 17 |
| 135 | Fenton reaction-initiated formation of biocompatible injectable hydrogels for cell encapsulation. Journal of Materials Chemistry B, 2013, 1, 3932. | 5.8 | 16 |
| 136 | Hyperbranched PEG-based multi-NHS polymer and bioconjugation with BSA. Polymer Chemistry, 2017, 8, 1283-1287. | 3.9 | 16 |
| 137 | A high strength semi-degradable polysaccharide-based hybrid hydrogel for promoting cell adhesion and proliferation. Journal of Materials Science, 2018, 53, 6302-6312. | 3.7 | 16 |
| 138 | Improved transfection efficiency of CS/DNA complex by co-transfected chitosanase gene. International Journal of Pharmaceutics, 2008, 352, 302-308. | 5.2 | 15 |
| 139 | Octaarginine-modified chitosan as a nonviral gene delivery vector: properties and in vitro transfection efficiency. Journal of Nanoparticle Research, 2011, 13, 693-702. | 1.9 | 15 |
| 140 | UV light-triggered unpacking of DNA to enhance gene transfection of azobenzene-containing polycations. Journal of Materials Chemistry B, 2014, 2, 3868. | 5.8 | 15 |
| 141 | Cyclodextrin-cross-linked diaminotriazine-based hydrogen bonding strengthened hydrogels for drug and reverse gene delivery. Journal of Biomaterials Science, Polymer Edition, 2013, 24, 1869-1882. | 3.5 | 14 |
| 142 | Ultrastable core–shell structured nanoparticles directly made from zwitterionic polymers. Chemical Communications, 2014, 50, 15030-15033. | 4.1 | 14 |
| 143 | A nucleoside responsive diaminotriazine-based hydrogen bonding strengthened hydrogel. Materials Letters, 2015, 142, 71-74. | 2.6 | 14 |
| 144 | A Mechanically Robust, Stiff, and Tough Hyperbranched Supramolecular Polymer Hydrogel. Macromolecular Rapid Communications, 2019, 40, e1800819. | 3.9 | 14 |

| # | Article | IF | CITATIONS |
|-----|---|------|-----------|
| 145 | A smart indwelling needle with on-demand switchable anticoagulant and hemostatic activities. Materials Horizons, 2020, 7, 1091-1100. | 12.2 | 14 |
| 146 | Modulation of osteoblast function using poly(D,L-lactic acid) surfaces modified with alkylation derivative of chitosan. Journal of Biomaterials Science, Polymer Edition, 2002, 13, 53-66. | 3.5 | 13 |
| 147 | Preparation and characterization of biocompatible poly(L-lactic acid)/gelatin blend membrane. Journal of Applied Polymer Science, 2006, 101, 269-276. | 2.6 | 13 |
| 148 | Fast thermoresponsive BAB-type HEMA/NIPAAm triblock copolymer solutions for embolization of abnormal blood vessels. Journal of Materials Science: Materials in Medicine, 2009, 20, 967-974. | 3.6 | 13 |
| 149 | The Unusual Mechanical Evolution of Biodegradable Double Hydrogen Bonding Strengthened Hydrogels in Response to pH Change. Macromolecular Chemistry and Physics, 2015, 216, 164-171. | 2.2 | 12 |
| 150 | A hyperbranched polymer-based water-resistant adhesive: Durable underwater adhesion and primer for anchoring anti-fouling hydrogel coating. Science China Technological Sciences, 2022, 65, 201-213. | 4.0 | 12 |
| 151 | 3D-printed, bi-layer, biomimetic artificial periosteum for boosting bone regeneration. Bio-Design and Manufacturing, 2022, 5, 540-555. | 7.7 | 12 |
| 152 | Enhancement of transfection efficiency for HeLa cells via incorporating arginine moiety into chitosan. Science Bulletin, 2007, 52, 3207-3215. | 1.7 | 11 |
| 153 | A bilayered scaffold with segregated hydrophilicity-hydrophobicity enables reconstruction of goat hierarchical temporomandibular joint condyle cartilage. Acta Biomaterialia, 2021, 121, 288-302. | 8.3 | 11 |
| 154 | 3D printing stiff antibacterial hydrogels for meniscus replacement. Applied Materials Today, 2021, 24, 101089. | 4.3 | 11 |
| 155 | A multifunctional biomedical patch based on hyperbranched epoxy polymer and MXene. Science China Technological Sciences, 2021, 64, 2744-2754. | 4.0 | 11 |
| 156 | Multiple H-bonding chain extender-based polyurethane: Ultrastiffness, hot-melt adhesion, and 3D printing finger orthosis. Chemical Engineering Journal, 2022, 433, 133260. | 12.7 | 11 |
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